

U.S. Application Serial No. 09/599,355

IN THE CLAIMS:

Please amend claims 1, 2, 7, 8 and 15, as follows:

1. (currently amended) A communication system including a mobile station sending a plurality of uplink radio link control data blocks to a base station in an uplink temporary block flow, and receiving a plurality of downlink radio link control data blocks from the base station in a downlink temporary block flow, comprising:

a protocol control unit within the base station, having a base station medium access control layer sending an identifier during setup of the downlink temporary block flow, and sending an uplink state flag indicating channel availability, which is not specific to a particular mobile station, in a first one of the plurality of downlink radio link control data blocks; and

a GPRS/EDGE subsystem within the mobile station, having a mobile station medium access control layer receiving the identifier and the uplink state flag, and sending uplink data in a first one of the plurality of uplink radio link control data blocks to the base station in response to the uplink state flag indicating channel availability, wherein the base station medium access control layer sends a directed acknowledgement in a subsequent one of the plurality of downlink radio link control data blocks in response to receipt of the uplink data from the mobile station, and the mobile station sends uplink data in a second one of the plurality of uplink radio link control data blocks in response to the directed acknowledgement.

2. (currently amended) A communication system including a first station sending a plurality of uplink data blocks to a second station in an uplink temporary block flow, and receiving a plurality of downlink data blocks from the second station in a downlink temporary block flow, comprising:

a protocol control unit within the second station, having a medium access control layer, which sends an identifier during setup of the downlink temporary block flow, and sends an uplink state flag indicating channel availability, which is not specific to a particular station including either the first station or the second station, in a first one of the plurality of downlink data blocks, and

a packet data subsystem within the first station, having a medium access control layer, which receives the identifier and the uplink state flag, and sends uplink data in a first one of the

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plurality of uplink data blocks to the second station in response to the uplink state flag indicating channel availability, wherein the medium access control layer of the second station sends a directed acknowledgement in a subsequent one of the plurality of downlink data blocks in response to receipt of the uplink data from the first station, and the first station sends uplink data in a second one of the plurality of uplink data blocks in response to the directed acknowledgement.

3. (previously presented) A communication system in accordance with claim 2 wherein the first station is a mobile station and the second station is a base station in a radio communication system.

4. (previously presented) A communication system in accordance with claim 3 wherein the radio communication system includes a Global System for Mobile (GSM) communication system with General Packet Radio Service (GPRS) and Enhanced Data for Global Evolution (EDGE).

5. (previously presented) A communication system in accordance with claim 2 wherein the downlink data blocks include downlink radio link control data blocks, and the uplink data blocks include uplink radio link control data blocks.

6. (previously presented) A communication system in accordance with claim 2 wherein at least some of the downlink data blocks and the uplink data blocks include packetized voice data.

7. (currently amended) A method for rapid uplink access of a communication system including a first station and a second station, the method in a first station comprising:

determining if the first station has uplink data to send;

if the first station has uplink data to send, then determining if ~~an uplink~~ a downlink temporary block flow setup has been established;

if ~~an uplink~~ the downlink temporary block flow setup has not been established, then ~~establishing a temporary block flow setup~~; receiving a downlink data block including an uplink state flag;

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comparing the value of the uplink state flag to a value indicative that the uplink channel is available, and if the uplink state flag has a value indicative that the uplink channel is available, without being specific to a particular station, then sending an uplink data block from the first station to the second station;

receiving a subsequent downlink data block including an uplink state flag; and
comparing the value of the uplink state flag of the subsequent downlink data block to a
value corresponding to an address assigned to the first station, ~~[[;]]~~ and if the value of the uplink flag corresponds to the address assigned to the first station ~~or the value of the uplink state flag is a value indicative that the uplink channel is available,~~ then sending an a subsequent uplink data block from the first station to the second station.

8. (currently amended) A method in accordance with claim 7 wherein if the value of the uplink state flag corresponds to the address assigned to the first station, when comparing the value of the uplink state flag, then incrementing to the next uplink data block to be transmitted in the first station after as part of sending an uplink data block.

9. (previously presented) A method in accordance with claim 7 wherein the uplink data blocks and the downlink data blocks are received via a radio link.

10. (previously presented) A method in accordance with claim 7 wherein the uplink data blocks include uplink radio link control data blocks and the downlink data blocks include downlink radio link control data blocks.

11. (previously presented) A method in accordance with claim 7 wherein a value of zero for the uplink state flag is indicative that the uplink channel is available.

12. (previously presented) A method in accordance with claim 7 wherein the first station is a mobile station and the second station is a base station in a radio communication system.

13. (previously presented) A method in accordance with claim 12 wherein the radio

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communication system includes a Global System for Mobile (GSM) communication system with General Packet Radio Service (GPRS) and Enhanced Data for Global Evolution (EDGE).

14. (previously presented) A communication system in accordance with claim 7 wherein at least some of the downlink data blocks and the uplink data blocks include packetized voice data.

15. (currently amended) A method for rapid uplink access of a communication system including a first station and a second station, the method in ~~[[a]]~~ the second station comprising:

determining if a channel has already been allocated to the first communication station in an uplink temporary block flow;

if the channel has not already been allocated, then determining if an uplink data block has been received from the first station;

if ~~an~~ the uplink data block has been received, then determining if ~~the~~ an uplink state flag of the uplink data block has a value corresponding to a valid downlink temporary block flow;

if ~~an~~ the uplink data block has not been received or if the uplink state flag of the received uplink data block does not have a value corresponding to ~~[[a]]~~ the valid downlink temporary block flow, then setting the an uplink state flag in the a downlink data block to a value indicative that the uplink channel is available, without being specific to a particular station, otherwise the uplink state flag in the downlink data block is set to the value of the uplink state flag of the ~~received~~ uplink data block received from the first station; and

sending ~~[[a]]~~ the downlink data block.

16. (previously presented) A method in accordance with claim 15 wherein the uplink data blocks and the downlink data blocks are received via a radio link.

17 (previously presented) A method in accordance with claim 15 wherein the uplink data blocks include uplink radio link control data blocks and the downlink data blocks include downlink radio link control data blocks.

18. (previously presented) A method in accordance with claim 15 wherein the value of the uplink

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state flag is set to a value of zero, to indicate that the uplink channel is available.

19. (previously presented) A method in accordance with claim 15 wherein the first station is a mobile station and the second station is a base station in a radio communication system.

20. (previously presented) A method in accordance with claim 19 wherein the radio communication system includes a Global System for Mobile (GSM) communication system with General Packet Radio Service (GPRS) and Enhanced Data for Global Evolution (EDGE).